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Supreme Court of the United States

OCTOBER TERM, 1995

LOTUS DEVELOPMENT CORPORATION,

*Petitioner,*

—v.—

BORLAND INTERNATIONAL, INC.,

*Respondent.*

ON WRIT OF CERTIORARI TO THE UNITED STATES  
COURT OF APPEALS FOR THE FIRST CIRCUIT

**BRIEF FOR THE PETITIONER**

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**QUESTION PRESENTED**

Whether a computer program's particular menu command hierarchy, which the district court found to contain expression separable from its underlying idea and the functionality it describes, may be protected by copyright in light of the explicit Congressional extension of copyright to computer programs under the same principles applicable to other literary works; or whether, as the First Circuit held, Section 102(b) of the Copyright Act bars protection for any such menu command hierarchy despite its expressive characteristics, because it assists users in communicating with a computer program in order to perform useful operations.

## STATEMENT PURSUANT TO RULE 29.6

See pp. i-iv of Petitioner's Reply In Support of Petition for  
a Writ of Certiorari.

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Lotus Development Corporation ("Lotus") respectfully seeks reversal of the judgment of the United States Court of Appeals for the First Circuit in this case.

### OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 1a-28a<sup>1</sup>) is reported at 49 F.3d 807. The opinions of the District Court for the District of Massachusetts (Robert E. Keeton, J.) are reported at 788 F. Supp. 78 (Pet. App. 145a-82a); 799 F. Supp. 203 (Pet. App. 106a-44a); 831 F. Supp. 202 (Pet. App. 71a-105a); and 831 F. Supp. 223 (Pet. App. 29a-70a). The opinion of the district court in the related case of *Lotus Development Corp. v. Paperback Software International* (hereinafter "*Paperback*") is reported at 740 F. Supp. 37 (Pet. App. 183a-269a).

### JURISDICTION

The court of appeals entered judgment on March 9, 1995. Pet. App. 1a. This Court granted a petition for certiorari on September 27, 1995. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254.

### CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

United States Constitution, art. I, § 8, cl. 8

The Congress shall have Power . . . [t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors . . . the exclusive Right to their . . . Writings. . . .

<sup>1</sup> "Pet. App." refers to the Appendix to Petition for a Writ of Certiorari filed on June 7, 1995, as distinguished from the "JA" or Joint Appendix filed herewith. Items appearing in braces, e.g., "{PX:x;y}," refer to the location in the record where an exhibit, e.g., "PX" for "Plaintiff's Exhibit," was offered ("x") and ruled on ("y") by the district court.

17 U.S.C. § 101, 17 U.S.C. § 102, 17 U.S.C. § 103, 17 U.S.C. § 107, 17 U.S.C. § 117. (The full text of the statutory provisions involved is set forth at Pet. App. 270a-80a and JA 985.)

### STATEMENT OF THE CASE

Petitioner Lotus, in the early 1980's, created and began selling the "Lotus 1-2-3" computer program, providing an original expression of a menu command hierarchy for an electronic spreadsheet program to users. Lotus registered copyrights in each version of Lotus 1-2-3 that it published. JA 801-08 {PX 9-12: Dkt. No. 332, 2-52; *id.*}. Respondent Borland International, Inc. ("Borland") later wrote and marketed competing spreadsheet programs called Quattro and Quattro Pro. Borland's programs included what Borland itself called "1-2-3 emulation" menus, which Borland concedes were copied from Lotus 1-2-3.

#### A. Procedural History

On July 2, 1990, Lotus sued Borland, alleging that Borland infringed Lotus' copyrights by copying protected expression from the Lotus 1-2-3 menu command hierarchy.<sup>2</sup> Upon cross-motions for summary judgment, in July 1992 the district court granted Lotus' motion in part. The court held that the 1-2-3 menu command hierarchy contained expressive elements protected by Lotus' copyrights and that Borland had copied that expression, but reserved certain issues for trial concerning the precise extent of the 1-2-3 menu command hierarchy's copy-rightability.<sup>3</sup>

<sup>2</sup> The suit was commenced four days after Lotus received a favorable ruling on a similar copyright claim in *Paperback*. The day after the *Paperback* decision, Borland filed a declaratory judgment action seeking a declaration of non-infringement in the Northern District of California, No. C-90-20386 VRW. JA 1. The California district court dismissed that action in favor of this one. *Id.* at 2.

<sup>3</sup> Pet. App. 116a. The district court also granted Lotus' motion for summary judgment dismissing Borland's affirmative defense of waiver,

Following the summary judgment decision, Borland removed the visible "1-2-3 emulation" menus from its products and began to publicize the existence of a feature called the "Key Reader," which was derived from those menus. *Id.* at 54a-56a; JA 785, 919 {PX 43: Dkt. No. 404, 5-67; *id.*}. Lotus was granted leave to file a supplemental complaint alleging that the Key Reader also infringed its 1-2-3 copyrights. JA 6 (Dkt. No. 305).

The district court held two bench trials after Borland withdrew its jury demand. Pet. App. 75a-77a. The scope of the Phase I trial was defined by stipulation as "all issues not previously finally decided by way of summary judgment concerning Borland's alleged liability herein, and all its defenses thereto," excluding Key Reader issues. JA 40-45. The Phase II trial addressed all issues relating to the Key Reader. *Id.* at 48-50. The district court issued separate opinions concerning the two phases of trial.

In the Phase I opinion, the court held that the "1-2-3 emulation" menus copied a qualitatively substantial amount of protected expression from the 1-2-3 menu command hierarchy (which it called the "menu structure"). Pet. App. 83a-94a. The district court also dismissed Borland's estoppel and laches defenses to the original complaint, based upon extensive and detailed findings of fact.<sup>4</sup> The Phase II opinion held that the

but held that trial was necessary concerning its defenses of estoppel and laches. *Id.* at 141a (waiver), 141a-42a (laches) & 142a-43a (estoppel).

<sup>4</sup> *Id.* at 95a-105a. Having failed to plead the affirmative defense of fair use in its answer to the original complaint, Borland first asserted the defense in closing argument at the Phase I trial over Lotus' objection. JA 107-17. The district court granted Borland leave to amend its answer to the original complaint *after* trial. *Id.* at 56-63 (motion); Dkt. No. 353, dated March 30, 1993 (granting motion). The district court then granted judgment in Lotus' favor pursuant to Fed. R. Civ. P. 52(c), rejecting Borland's argument that its infringement had no actual or potential negative effect on the value of Lotus' copyrights. JA 187-92; Pet. App. 76a-77a. Borland's contentions were based entirely upon three Lotus statements indicating that, at various times, Lotus had held the same share of the DOS spreadsheet market. JA 183.

Key Reader also contained a "virtually identical" copy of "details of expression of the Lotus 1-2-3 program's menu structure." Pet. App. 46a-47a. The district court further rejected all of Borland's affirmative defenses to the supplemental complaint.<sup>5</sup> Concluding that Borland had infringed Lotus' copyrights, the district court entered a permanent injunction (at Borland's request) on August 19, 1993, prohibiting further sales of Borland's products in a form that contained the infringing features. *Id.* at 69a-70a. Borland appealed to the First Circuit as of right pursuant to 28 U.S.C. § 1292(a)(1). JA 9 (Dkt. No. 408).

Oral argument was initially heard on April 6, 1994, and the case was reargued on October 6, 1994, in the wake of then Chief Judge (now Justice) Breyer's recusal. JA 11. The court of appeals issued its opinion reversing the judgment of the district court on March 9, 1995 (*id.* at 12), four days before a damages trial was scheduled to commence. *See* Dkt. No. 668. The First Circuit held that the 1-2-3 menu command hierarchy was not entitled to copyright protection.<sup>6</sup> Lotus filed a petition for a writ of certiorari on June 7, 1995, which was granted on September 27, 1995.

<sup>5</sup> *Id.* at 48a-69a. Regarding fair use, the district court carefully considered the factors specified in 17 U.S.C. § 107, finding that each weighed in Lotus' favor. *Id.* at 60a-68a. In particular, the district court found that "Borland's limited evidence concerning market share is entirely insufficient to demonstrate that Lotus has not been harmed" by Borland's use. *Id.* at 67a.

<sup>6</sup> Pet. App. 22a. The First Circuit therefore did not address any of the affirmative defenses Borland raised on appeal. In addition to fair use, Borland argued in the First Circuit only the defenses of laches to the original complaint and waiver to the supplemental complaint. Brief of Defendant/Appellant Borland International, Inc., at 58-63 (1st Cir.) (No. 93-2214). Accordingly, its other affirmative defenses were abandoned. *Ryan v. Royal Ins. Co. of America*, 916 F.2d 731, 734 (1st Cir. 1990).

## B. Factual Background

In the court of appeals, Borland conceded—and the court accepted—that Borland copied the Lotus 1-2-3 menu structure or menu command hierarchy, in its entirety, in the Borland Quattro and Quattro Pro programs.<sup>7</sup> We focus, accordingly, on facts pertinent to determining the copyrightability of the 1-2-3 menu command hierarchy as a whole, in particular its nature, purpose, and original creation. We then turn to the facts surrounding Borland's incorporation of the 1-2-3 menu command hierarchy in its products, and demonstrate that the factual premises upon which the First Circuit relied in reaching its decision are either contrary to, or unsupported in, the record below.

### 1. The nature and purpose of the Lotus 1-2-3 menu command hierarchy.

A proper understanding of the nature and purpose of the 1-2-3 menu command hierarchy is critical to an appropriate resolution of this case. As used by the First Circuit, the term refers to 469 words or "menu commands" arranged in more than 50 different "menus" and sequential sub-menus, which are displayed to the user on the computer monitor screen during use of the Lotus 1-2-3 computer program. Pet. App. 4a. The menus appear in variable series designed by the authors of 1-2-3 to respond to users' choices from previous menus, branching out from the first or "main" menu in what often is

<sup>7</sup> Pet. App. 10a. Lotus proffered direct proof of Borland's copying in the district court (JA 549-55, 574-75, 707-08, 763-66, 778 & 794-96), and an examination of the products themselves reveals that no other conclusion is possible. *See id.* at 64-69 (Dkt. Nos. 359, 360) (the computer programs at issue, installed on a computer, are part of the record herein, together with the products' user's manuals and packaging) (PX 1-8, 20-27, 35, 50, DX 516, 518-521; Dkt. No. 332, 2-1, 2-16; Dkt. No. 333, 3-26:4-11); *id.* at 317-19 (Dkt. No. 107, Ex. A) (books containing photographs of the menus at issue) (Dkt. No. 332, 2-35, 2-36; Dkt. No. 333, 3-26:4-11); Dkt. No. 118, Ex. thereto (videotape demonstrating the programs in operation) (Dkt. No. 332, 2-35, 2-36; Dkt. No. 333, 3-26:4-11).

called a "menu tree." *Id.* at 78a-84a; JA 326, 370 & 375. It is the copyrightability of the overall combination of words and menus in the 1-2-3 menu command hierarchy, viewed as a whole, and *not* any individual menu command such as "COPY" or "PRINT," viewed in isolation, that is at issue in this case.<sup>8</sup>

Despite the First Circuit's comparison of the menu commands to the buttons on a videocassette recorder ("VCR") machine (Pet. App. 18a), the words do not, in themselves, perform any mechanical function. They are simply words of text. These words describe—when read in sequence—an array of operations available to the user and, like the pages of an instruction manual or reference guide, provide information to assist users in selecting the appropriate instructions to cause the program to perform certain tasks. Pet. App. 78a-81a; JA 333-36, 377. They are, and were intended to be, a form of structured dialogue between 1-2-3's authors and users, in which the capabilities of the program are explained in plain English and users, in turn, can learn which instructions will cause the program to perform particular functions by making choices from successive menus.

Lotus 1-2-3 is an example of a type of computer program known as a "spreadsheet" application program.<sup>9</sup> Typically, spreadsheet programs provide users with the ability to perform arithmetical and mathematical operations on numerical data

<sup>8</sup> Similarly, Lotus' claim is based upon the content that Borland copied from 1-2-3's screens, including the words, their order, and overall arrangement, rather than the color, style, layout, or format in which the words or menus are displayed on the screens.

<sup>9</sup> Pet. App. 186a; JA 375. Personal computer programs generally are divided into two categories: operating systems and application programs. Pet. App. 186a. The former control the basic functions of the computer, such as the internal allocation of computer memory. *Id.* The latter permit a user to perform a set of related operations directed towards particular tasks, such as word processing or database management. *Id.* Typically, application programs are designed to work with a particular operating system, for example, DOS or UNIX, and will not work with a computer directly.

entered by the user in an electronic representation of a spreadsheet grid, arranged in columns and rows; to reconfigure the style or layout of the spreadsheet to suit the user's particular needs; and to manipulate and present the data in the spreadsheet in a variety of different tables or graphs of the user's choice. Pet. App. 226a-27a.

The Lotus 1-2-3 menu command hierarchy is part of what is typically called the "user interface" of the program, because it is the program component with which the user directly communicates. *Id.* at 226a-29a; JA 324, 333, 360 & 375. The user interface is not free-standing, however. It is part of the program, and is generated by the statements contained in the program's "source code."<sup>10</sup> As the district court explained in *Paperback*, computer programs typically are written in source code, using a form of programming language, such as BASIC or FORTRAN, that employs symbolic names and rules of syntax to express instructions for the computer to execute.<sup>11</sup> The user usually never sees or even is aware of the program code during operation of the program. However, the actual contents of the user interface—including the words appearing in the 1-2-3 (or Borland) menus—is spelled out, in text, in the program code. JA 64 {PX 13: Dkt. No. 332, 2-52, 2-53; Dkt. No. 333, 3-26-4:11}, 360, 548 & 756-58.

In order to learn or recall the appropriate instructions to give the program to perform functions that correspond to the

<sup>10</sup> JA 330, 450. In the case law, user interfaces often have been referred to as "non-literal elements" of computer programs. Pet. App. 258a-60a.

<sup>11</sup> Pet. App. 188a-89a. The source code must be converted or "compiled," typically by a distinct "compiler" program, into a binary form that the digital computer can recognize, called a machine language, before the computer can execute the program. Pet. App. 189a. Compiled source code is called "object code." *Id.* Most commercial software is distributed only in the form of object code.

menu commands,<sup>12</sup> the user presses the "/" (slash) key on the computer keyboard. Pet. App. 123a, 227a. The program, in response, displays the main menu of ten words, beginning with "WORKSHEET," "RANGE," "COPY," and "MOVE."<sup>13</sup> Most of these do not relate to a specific operation that the program will perform. Rather, they describe categories of commands, and serve to guide the user to another menu, or sub-menu, of increasingly specific command choices, and so on until all the instructions necessary to cause the program to perform a particular task have been described. *Id.* at 78a-84a; JA 334-35, 384-85 & 735.

At each menu level, the user indicates a selection from the menu by striking one of the cursor (arrow) keys to highlight the particular menu command and then striking the "Enter" key, or by striking a letter key corresponding to the first letter of the word, *e.g.*, "W" for "WORKSHEET."<sup>14</sup> Only after an entire sequence of keystrokes is completed (and, usually, after some data is entered, such as an identification of the portion of the spreadsheet to be affected), does the program

<sup>12</sup> The menu commands are not the only commands available to users when working with 1-2-3, nor do they cause the program to perform arithmetical or mathematical operations. Such operations are invoked by typing "formulas" within the individual "cells" in the spreadsheet grid, using familiar arithmetical notation (*e.g.*, "+" or "-") or special commands called "@ functions" (because they are preceded by the "@" symbol) for more complex mathematical expressions. Pet. App. 232a. Only the menu commands are at issue in this case.

<sup>13</sup> *Id.* at 227a-28a. The description in text is of the versions of Lotus 1-2-3 that Borland copied, all of which were published prior to November 1986. *Id.* at 81a, 96a & 113a.

<sup>14</sup> Pet. App. 227a-28a; JA 376. This particular style of menu, called the "moving cursor menu," was conceived by Lotus' founder, Mitchell Kapor, and employed in two earlier programs he had written. Pet. App. 286a. Lotus has never contended that the idea of a moving cursor menu, in contrast to the words in the menus that give them meaning and content, is protected by Lotus' copyrights. The district court so held in *Paperback* (*id.* at 230a, 254a), and it is not at issue here.

actually perform an operation involving the spreadsheet.<sup>15</sup> The words appearing in the menus on the screen—what the user perceives—therefore can be distinguished from the physical tasks—the keystrokes—the user must undertake to send an instruction to the program, as well as from the operation that the program ultimately performs after the instruction is sent.

## 2. The creation and value of the Lotus 1-2-3 menu command hierarchy.

The 1-2-3 menu command hierarchy was created in the latter half of 1982 by Mr. Kapor and a team working under his direction. Pet. App. 231a. Kapor and his team previously had specified the selection of functional capabilities that the program would provide (such as allowing the user to replicate data or formulas entered in one portion of a spreadsheet in another), and had implemented those capabilities in the program's code. *Id.* at 288a. The menu commands reflected Kapor's subsequent attempt to express those capabilities to users, in full words "that would intelligently convey to the user the purpose of each command." *Id.* at 291a. The arrangement of the menus in a hierarchical structure was intended to communicate "the product's underlying functionality" to users in a clearly organized presentation. *Id.* Kapor and his team spent hundreds of hours over a period of many months considering (and discarding) dozens of organizations of the menu tree, and refining the choice of each word in the menus and the order of those words within each menu.<sup>16</sup> The menu hierarchy Kapor ultimately selected "was based largely on my intuition and subjective judgment . . . trying as best I could to imagine myself in the

<sup>15</sup> JA 334-35, 384-85. Thus, it is not true that the user can issue an instruction described by a single menu command, such as striking the key "P" for "PRINT," and cause the program to perform a printing operation, as the First Circuit appeared to believe. Pet. App. 15a.

<sup>16</sup> *Id.* at 290a-96a; JA 538-39. Kapor and his team were not only free to choose any existing word, but also could invent new words, as they did in at least one instance (*i.e.*, "Xtract"). Pet. App. 295a.

role of a typical user." *Id.* at 292a. He had no rule book, model, or data to guide him.<sup>17</sup>

It is undisputed that the 1-2-3 menu command hierarchy is original for copyright purposes, in that Lotus created it independently, without copying or derivation from prior works. *See Feist Publications, Inc. v. Rural Telephone Serv. Co.*, 499 U.S. 340, 345 (1991) ("Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity."). The district court in *Paperback* held that the 1-2-3 menu command hierarchy was "very different" from previous products. Pet. App. 234a. Borland never asked the district court to rule differently in this case.<sup>18</sup> Even aside from originality in the narrow copyright sense, the creativity expressed in the 1-2-3 menu command hierarchy, by making the program's capabilities clear and comprehensible to users, formed a major part of the program's value.<sup>19</sup>

<sup>17</sup> *Id.* 1-2-3 also was designed to allow the user to create "macros," or sequences of frequently-used keystrokes that can be executed automatically with a single keystroke. *Id.* at 290a. Macros may include commands other than menu commands, and keystrokes having nothing to do with commands at all. *Id.* at 228a-29a.

<sup>18</sup> Although Borland did suggest that the 1-2-3 menus were not novel because some of their words had been used previously in other programs or in programming languages, that is not—and never has been—relevant under copyright law. Borland never contended, and could not prove, that the words used in Lotus 1-2-3's menu command hierarchy had appeared previously in a single program, arranged in the same hierarchical organization, to describe the same set of functional operations. JA 314-15.

<sup>19</sup> *See* Peter Huber, "Madonna Ain't Software," *Forbes*, Sept. 3, 1990, at 104 ("unlike the alphabet, command structures are not a universal and ancient heritage of the spreadsheet business; they are what distinguish the good, the bad and the ugly . . . Some, like the Lotus spreadsheet, are wonderfully transparent and intuitive.").

In a world in which graphical user interfaces for personal computer software have become commonplace, it may be difficult to appreciate the extent to which the Lotus 1-2-3 menu command hierarchy represented a major advance in user interface design when the product was introduced in January 1983. At the time, the user interfaces of popular programs were relatively crude. For example, VisiCalc—the leading spreadsheet program prior to 1-2-3—displayed a list of letters arranged in alphabetical order to represent its array of available commands. Pet. App. 233a, 267a. This cryptic notation forced users to memorize the commands, or to consult the product's manuals or other written documentation, in order to decipher the letters and take advantage of the program's capabilities. Despite significant established competition, Lotus 1-2-3 soon supplanted VisiCalc as the most popular DOS spreadsheet program.<sup>20</sup> Its user interface—including its menus—played "a substantial role" in that success, as the district court found. Pet. App. 135a; JA 474. Borland's own software developers admitted that menus convey information to users and assist them in learning the program. JA 563-64, 568-70, 580-81, 589-90, 767-68, 769 & 782-83. Both sides' experts further agreed that the 1-2-3 menus possessed "great commercial significance."<sup>21</sup>

### 3. The nature and purpose of Borland's copying.

Borland did not need to copy the Lotus 1-2-3 menu command hierarchy to create a spreadsheet product that would provide the same functional capabilities as 1-2-3. As the dis-

<sup>20</sup> Competitive products available in 1983 included VisiCalc as well as Microsoft MultiPlan, SuperCalc, Context MBA, and numerous others. Exhibit A to the Declaration of Jim P. Manzi, dated November 1, 1991 (Dkt. No. 111).

<sup>21</sup> *Id.* at 333, 343-44, 454, 507 & 697-98. Although Borland contended that 1-2-3 would have succeeded just as well if it had used other, equally good, words or arrangements, the district court was not required to resolve that issue at any stage of the proceedings below, and it did not purport to do so.

district court found (and the First Circuit accepted), the 1-2-3 menu command hierarchy is only one of a very large number of possible ways to express a set of instructions a user can give to a spreadsheet program. Pet. App. 86a-88a, 131a-33a. The record before the district court contained numerous examples of contemporaneous programs that performed the same functions, but employed different menu hierarchies and menu commands. *Id.* at 88a; JA 64-70, 339. Indeed, the district court found that, even if a software developer voluntarily restricted itself to designing a program that provided *exactly* the same set of functional capabilities that 1-2-3 provided, using the same type of hierarchical menu structure, there still would be millions of possible permutations for an acceptable spreadsheet menu command hierarchy. Pet. App. 131a-32a; JA 338. Other words could be chosen to represent each menu command; the order of the words within each menu could be altered; and the placement of commands in particular menus—*i.e.*, the decisions as to which commands should depend upon other commands, at what depth in the hierarchical arrangement—could be varied. Pet. App. 86a, 131a-32a; JA 337-38, 378-79, 506, 699-702 & 719-22.

Borland copied the 1-2-3 menu command hierarchy, therefore, and included it in its products for commercial reasons, not as a technical necessity. Simply put, it sought to minimize its risk in entering the spreadsheet market by exploiting 1-2-3's prior success. Borland was not the first Lotus competitor to pursue this tack. Lotus' early success was followed rapidly by imitators such as Paperback Software, who sought to enter the spreadsheet market with self-described 1-2-3 "clones," or programs displaying menu command hierarchies deliberately copied from Lotus 1-2-3, which sold at substantially lower prices. Pet. App. 147a-48a, 236a-38a. Lotus commenced the *Paperback* case in January 1987. *Id.* at 96a. With full awareness of that pending case, Borland released the first version of its spreadsheet products, called "Quattro," in November 1987, and a second product, called "Quattro Pro,"

in November 1989. *Id.* at 96a, 100a. These products also were offered to 1-2-3 users at less than half the retail price of 1-2-3. JA 907-14 (PX 15, 18-19; Dkt. No. 332, 2-57, 2-58; Dkt. No. 333, 3-26:4-11).

Quattro and Quattro Pro differed from earlier "clones" chiefly by providing alternative menu command hierarchies that the user could select: a so-called "native" menu tree, which was developed independently by Borland and differed materially both in menu content and in hierarchical arrangement from 1-2-3 (JA 559-60, 770-72 & 779); and the "1-2-3 emulation" menu tree, which contained a virtually identical copy of the Lotus 1-2-3 menu command hierarchy. Pet. App. 82a. Both types of menu trees allowed users to invoke the same set of functional capabilities. *Id.* at 131a; JA 774-75. Contrary to the lower court's impression that it "takes some effort" to "access[ ] the Lotus menu in the Borland" products (Pet. App. 25a), Borland made it easy for users to find and select the "alternative" 1-2-3 menus.<sup>22</sup> Once those menus were selected, they would appear automatically each subsequent time the program was run.<sup>23</sup>

Although Borland's designers naturally believed their own menus were superior to 1-2-3's (JA 558-60, 579, 770-71 & 779), Borland nevertheless decided to include the 1-2-3 menu command hierarchy in its products to enhance its marketing

<sup>22</sup> The user's manuals Borland sold with its products prominently described the specific commands required to select a menu tree. *See, e.g.*, JA 65-66 (*Getting Started with Quattro* at 4, ch. 4 at 23 ("Quattro for 1-2-3 Users"); *Getting Started with Quattro Pro* at 2, ch. 4 at 27 ("Quattro Pro for 1-2-3 Users")). The user needed merely to choose the so-called "123.RSC" or "123.MU" options from the Quattro and Quattro Pro menus, respectively, to cause the program to display the 1-2-3 menus whenever the "slash" key was struck. *Getting Started with Quattro* at 26; *Getting Started with Quattro Pro* at 38-39. *See also* JA 705 (Borland expert opining on the ease of switching menu trees).

<sup>23</sup> JA 65-66 (*Quattro User's Guide* at 152-53; *Quattro Pro User's Guide* at 196-97), 705.

efforts. Borland assumed that existing 1-2-3 users would be disinclined to "learn a new menu tree" and therefore might be reluctant to purchase its products. *Id.* at 739-40. The "1-2-3 emulation" menus were seen as a "migration tool," which would allow Borland to overcome this resistance by promoting the presence of the "familiar and comfortable" 1-2-3 menu tree as an alternative to Borland's own. *Id.* at 558, 568-70, 595, 652-54, 739 & 741-42. The experts on both sides agreed that this provided Borland with a significant marketing advantage (*id.* at 330-33, 354, 704-05 & 731-32), which Borland tried to exploit at every opportunity. Its promotional material stressed: "If you know how to use 1-2-3, you know how to use Quattro[.] You don't have to learn a whole new program."<sup>24</sup>

Borland also promoted its products to 1-2-3 users by stressing that they could preserve and reuse the macros they had written for use with 1-2-3. Borland described this as "macro compatibility," which it marketed along with "menu compatibility" as among its chief competitive advantages. JA 595-96 ("we promoted everything that we could think of that would make Quattro easier for Lotus users to adopt"). See also *id.* at 66 (product packaging for first version of Quattro Pro), 737-38 (promotional activities). Originally, Borland users could run 1-2-3 macros only by employing the "1-2-3 emulation" menus in Borland's products. *Id.* at 568-71, 764-66 & 778. After this lawsuit commenced, Borland devised a new feature in order to continue to provide "macro compatibility" without the visible display of the 1-2-3 menus. *Id.* at 784-86. Called the Key Reader publicly—but described as the "phantom 1-2-3 menus" inside Borland—this consisted of a stripped-down version of the same program file Borland had used to display the "1-2-3 emulation" menus, which was now

<sup>24</sup> *Id.* at 908. See also *id.* at 909 ("Exceptional compatibility with Lotus® 1-2-3®. Use the same commands and macros as you would in 1-2-3.") (emphasis in original).

hidden inside the program. Pet. App. 30a-33a; JA 787-94, 915 {PX 32: Dkt. No. 404, 5-67; *id.*}, 916 {PX 33: Dkt. No. 404, 5-67; *id.*} & 931-67 {DX 520 [sic]: Dkt. No. 403, 4-164; *id.* at 4-200}.

#### 4. The competitive effect of Borland's copying.

The court of appeals rested its decision on a number of factual premises and assumptions that were not tried or proven in the district court concerning competition in the spreadsheet market. For example, both the majority and concurring opinions appear to assume that, if Borland had not copied the 1-2-3 menu command hierarchy, spreadsheet users would have been "locked in" to Lotus because of their unwillingness to learn or invest in a new program. Pet. App. 20a, 26a. Yet, while Borland's own executives uniformly testified at deposition that inclusion of the 1-2-3 menus was an "important" factor in such commercial success as Borland did achieve, they could not swear that it was *necessary* to allow Borland to offer a commercially viable product. JA 544-46, 590, 594, 653, 657-58 & 740-41. The effect of Borland's copying on either its or Lotus' sales was never litigated or adjudicated in the district court. Nor was it proven in the district court that Borland's "success" was "due primarily to other features," or to inherent product superiority, as both the majority and concurring opinions below assume.<sup>25</sup> What caused consumers to purchase Borland's products, or even who those consumers were, was not before the court of appeals and could not properly form a basis for its decision.

<sup>25</sup> Pet. App. 4a, 26a-27a. The First Circuit's views might be explained by the fact that the district court, in its infringement analysis, necessarily compared the versions of 1-2-3 that Borland copied—which were written in 1986 or before—to Borland's newer 1987 and 1989 products, which contained the copied menus. The court of appeals apparently did not realize that there were newer versions of Lotus' products as well, and that it was not able to compare Borland's products to the contemporaneous versions of 1-2-3 with which they actually competed.

The First Circuit also appeared to assume that market conditions had not changed from 1987, when Borland first decided to copy the Lotus 1-2-3 menus. By 1993, however, both Lotus and Borland had fallen far behind another competitor, Microsoft (and its product Excel), as the personal computer software market shifted away from DOS products to the Microsoft Windows operating environment. Indeed, when Borland removed the "1-2-3 emulation" menus from its products following the district court's summary judgment decision in July 1992, it described the 1-2-3 menu command hierarchy as an "outdated user interface." JA 919. The court below simply ignored the dynamic nature of the market, assuming that Lotus in 1995 continued to hold "such sway" that it "represented the *de facto* standard for electronic spreadsheet commands." Pet. App. 26a. In the software industry, however, "standards" may change, as the histories of both VisiCalc and Lotus 1-2-3 have shown. The First Circuit's views concerning the market effects of its decision thus rested on an incomplete and deeply flawed understanding of the competitive terrain, derived from a nonexistent record.

## INTRODUCTION AND SUMMARY OF ARGUMENT

The issue in this case is whether the copyright protection Congress granted computer programs protects the original, creative expression contained in their user interfaces against wholesale appropriation by those who determine to achieve commercial success through imitation rather than innovation. As we show below, Congress provided in the Copyright Act of 1976, and reaffirmed in the 1980 Software Amendments, that computer programs are to be protected under copyright as literary works, subject to the same principles applicable to other, more familiar works of authorship. Applying the traditional tools of copyright analysis to new forms of expression has not always been a simple or straightforward task, but the courts have successfully faced such challenges before.

Indeed, until the First Circuit ruled in this case, the various courts of appeals were well on their way toward reaching consensus concerning the new issues presented by copyright in computer programs. That the application of old doctrines to new technologies may not always be easy, however, is no excuse for courts to disregard a clear Congressional mandate.

In this case, the First Circuit denied all copyright protection to a new form of expression—the Lotus 1-2-3 menu command hierarchy—because it did not appreciate (or understand) the work and ultimately did not believe that it should be protected. This case is not about VCR buttons, automobile gearshifts, or any other type of machine part.<sup>26</sup> It is about a collection of hundreds of words that the authors of 1-2-3 carefully arranged in a complex structure to express to computer users an original way to communicate with a particular kind of computer program. Were these words fixed upon a series of printed pages, instead of appearing on a computer screen, there could hardly be a question that they would be protected by copyright. Even a shorter and simpler work could contain the minimal creative spark that copyright requires. *Feist*, 499 U.S. at 358-59.

Why, then, did the First Circuit reach a different outcome in this case? Its decision provides no sound answer. Beyond a facile and flawed analogy to VCR buttons,<sup>27</sup> the sum and

<sup>26</sup> As Judge Keeton wrote in *Paperback*, while "similes, metaphors, and other forms of allusion are appropriately a part of our efforts to communicate ideas," they are no substitute for "logically compelled inferences from authoritative declarations." Pet. App. 242a.

<sup>27</sup> The problem with the VCR button analogy is *not* simply the fact that a computer program is a copyrightable work, while a VCR is not, thus rendering a claim for copyright protection of the "user interface" of the latter inherently suspect. Although valid, this is not the most important distinction. Rather, on a more fundamental level, a purported "work of authorship" consisting of six buttons labeled "Stop," "Pause," "Play," "Fast Forward," "Rewind," and "Eject," would surely fail to qualify as copyrightable under one or more of the traditional copyright tests such

substance of the First Circuit's analysis is its determination to treat the words "method of operation" in Section 102(b) of the 1976 Copyright Act as disqualifying, *per se*, all elements of a work that can be defined as *part* of a "method of operation," including expressive elements. By means of this definitional short-cut, the First Circuit could dispense with the abstract and sometimes difficult job of separating the "idea" (or "method" or "process") in a work from any protected expression it may contain. The district court, in contrast, undertook this task and, after extensive fact-finding and analysis, concluded that the 1-2-3 menu command hierarchy did contain separable expression worthy of protection. Having chosen a more simplistic rule of decision, the First Circuit dismissed the district court's efforts as irrelevant.

Whether this approach was driven by a misguided search for a bright line test in an area of law that has never yielded any, or instead by the policy considerations articulated in both the majority and the concurring opinions below, it is clear that the First Circuit's analysis cannot be reconciled with Congress' manifest intention to grant copyright in computer programs. Congress stated that computer programs should receive protection as literary works, notwithstanding their utilitarian and functional nature, and despite its understanding that they are used to implement a process or method. If, as the First Circuit held, anything that can be defined as part of a method of operation is ineligible for copyright protection, then by the same logic virtually everything in a computer program—source code no less than textual menus on the screen—is unprotected. This result effectively negates Congress' intent. Moreover, Congress explicitly stated, and this Court has held, that Section 102(b) is a codification of

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as merger, *scenes a faire* or originality. Lotus 1-2-3's menu command hierarchy, on the other hand, passed each of these tests—based upon a full trial record—as would a table of contents, or an abbreviated user's manual, containing 469 textual entries arranged in more than 50 hierarchically-linked pages.

the "idea/expression dichotomy." This compels exactly the kind of fact-based, line-drawing exercise that Judge Keeton faithfully undertook, but the First Circuit never attempted.

Ultimately, the First Circuit's decision rests not upon the statute, legislative history, or precedent—which it disregarded without more than a passing reference or attempt at distinction—but upon a cluster of subjective policy notions and a mistaken belief that it was free to decide what the law should be. Even if the record below provided an accurate and informed basis for making such policy determinations—and it does not—the First Circuit simply failed to heed this Court's repeated admonitions that, under the Constitution, such judgments are for Congress to make, not the courts. In this case, Congress did speak; the court below failed to listen.

## ARGUMENT

### I

#### THE COPYRIGHT ACT OF 1976 PROTECTS EXPRESSION IN COMPUTER PROGRAMS UNDER THE TRADITIONAL PRINCIPLES GOVERNING PROTECTION FOR ALL FORMS OF EXPRESSION

The outcome of this case depends upon the proper interpretation of Section 102 of the Copyright Act of 1976 (the "1976 Act"), 17 U.S.C. § 102, in light of Congress' decision to recognize meaningful copyright protection for original works of authorship expressed in computer programs. This case does *not* rest solely on an interpretation of Section 102(b), as the First Circuit appeared to believe. Pet. App. 17a. That subsection can be understood only in the context of the entirety of Section 102 and the remainder of the statute.

Congress' authority to confer copyright protection is found in the United States Constitution, art. I, § 8, cl. 8:

The Congress shall have Power . . . [t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors . . . the exclusive Right to their . . . Writings.

Congress exercised this power when it enacted Section 102 of the 1976 Act, which grants copyright protection in an extremely broad range of subject matter:

Copyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced or otherwise communicated, either directly or with the aid of a machine or device. (17 U.S.C. § 102(a).)

Copyright protection is a form of property awarded by Congress to achieve the objectives of the constitutional clause. The statute vests a bundle of distinct property rights in the author from the time of the work's creation<sup>28</sup>—most notably in this case, the right to prevent others from copying or reproducing the work without permission.

**A. In Section 102(a) of the 1976 Act, Congress Protected the Expression in Computer Programs under Copyright.**

Congress deliberately employed expansive language in Section 102(a) of the 1976 Act in an attempt to avoid the misunderstanding that arose concerning the scope of copyrightable subject matter under the Copyright Act of 1909, 35 Stat. 1076 (the "1909 Act"), and to allow for the foreseeable emergence of new media of expression. Before 1909, Congress attempted to accommodate new forms of expression by specifically enumerating the categories of works entitled to copyright protection, gradually expanding the scope of coverage. *Mazer v.*

<sup>28</sup> *Stewart v. Abend*, 495 U.S. 207, 220 & n.3 (1990); *Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539, 546-47 (1985). See 17 U.S.C. § 106 (listing various exclusive rights).

*Stein*, 347 U.S. 201, 208-10 (1954).<sup>29</sup> Congress rejected this approach in the 1909 Act.<sup>30</sup> Thus, Congress defined the "works for which copyright may be secured" in Section 4 of the 1909 Act as "all the writings of an author," with the intention of including "all forms of record in which the thought of an author may be recorded and from which it may be read or reproduced." *Id.* (internal quotation omitted). Despite this definition, however, the list of registration categories set forth in the succeeding Section 5 was, "as a practical matter . . . read to limit the general statement." Benjamin Kaplan, *An Unhurried View of Copyright* 39 (1967). See *Feist*, 499 U.S. at 352 (noting that some courts misread Section 5 of the 1909 Act). Confusion arose because the legislative history of the 1909 Act also suggested that Section 4 was "declaratory of existing law" only. *Mazer*, 347 U.S. at 210.

Acting in a context of increasingly rapid technological change, Congress enacted Section 102(a) of the 1976 Act to replace Section 4 of the 1909 Act. *Feist*, 499 U.S. at 355. Congress' embrace intent is clear in its language: any "original work[ ] of authorship" that is "fixed in any tangible medium of expression," which can be perceived or communicated directly or "with the aid of a machine or device," is copyrightable. By enacting protection for expression in all media "now known or later developed," Congress demonstrated its intention not to limit the works eligible for copyright to the forms then in existence or in popular use, but to protect new forms of expression that would become possible only through future technological advances.<sup>31</sup>

<sup>29</sup> By 1904, Congress had enacted "some twenty-five laws dealing with copyrights." *Id.* at 209 n.12.

<sup>30</sup> The legislative history of the 1909 Act reflects Congress' belief that the "existing statutes attempt specifications which are unfortunate because necessarily imperfect and requiring frequent additions to cover new forms or new processes." S. Rep. No. 6187, 59th Cong., 2d Sess., at 4.

<sup>31</sup> See H.R. Rep. No. 1476, 94th Cong., 2d Sess., at 51 (the "House Report"), reprinted in 1976 U.S.C.C.A.N. 5659, 5664 ("The history of

Section 102(a) goes on to provide a list of eight categories of protected "works of authorship," which are intended to be "illustrative and not limitative." House Report at 53, *reprinted in* 1976 U.S.C.C.A.N. at 5666. The legislative history demonstrates that Congress did not intend these categories to

exhaust the scope of "original works of authorship" that the bill is intended to protect. Rather, the list sets out the general area of copyrightable subject matter, but with sufficient flexibility to free the courts from rigid or outmoded concepts of the scope of particular categories. *Id.*

One such protected category is "literary works," defined in Section 101 of the 1976 Act as works, "other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects . . . in which they are embodied." 17 U.S.C. § 101. Both a computer program's code and its textual menus are expressed in such "words, numbers, or other verbal or numerical symbols or indicia," fitting the literal terms of the definition. Both are fixed in a tangible medium of expression and can be "perceived, reproduced, or otherwise communicated," either directly or with the aid of a computer or other "machine or device." Both therefore comprise copyrightable subject matter under Section 102(a). Indeed, the legislative history of the 1976 Act confirms that Congress specifically intended that computer programs, as well as textual works (such as data bases) communicated through the medium of a computer, should be protected as "literary works":

copyright law has been one of gradual expansion in the types of works accorded protection . . . . Authors are continually finding new ways of expressing themselves, but it is impossible to foresee the forms that these new expressive methods will take. The bill does not intend either to freeze the scope of copyrightable subject matter at the present stage of communications technology or to allow unlimited expansion into areas completely outside the present congressional intent.").

The term "literary works" does not connote any criterion of literary merit or qualitative value: it includes catalogs, directories, and similar factual, reference, or instructional works and compilations of data. *It also includes computer data bases, and computer programs to the extent that they incorporate authorship in the programmer's expression of original ideas, as distinguished from the ideas themselves.* (House Report at 54, *reprinted in* 1976 U.S.C.C.A.N. at 5667 (emphasis supplied).)

Congress' enactment was well within its Constitutional power.<sup>32</sup>

In 1980, Congress reaffirmed this intention when it adopted, without material modification, the recommendations of the National Commission on New Technological Uses of Copyrighted Works ("CONTU").<sup>33</sup> Congress had established CONTU in 1974 for the purpose, *inter alia*, of studying the relationship between computers and copyrights, and making recommendations concerning what, if any, changes in the law were appropriate to accommodate computer programs.<sup>34</sup> Following extensive study, public hearings, and debate, CONTU recommended that computer programs continue to receive protection under the 1976 Act as "literary works." *See* Final Report of the National Commission on New Technological

<sup>32</sup> As Learned Hand wrote in *Reiss v. National Quotation Bureau, Inc.*, 276 F. 717, 719 (S.D.N.Y. 1921) (holding a cable and telegraph code book copyrightable), the Constitution "is not a strait-jacket, but a charter for a living people," and grants Congress the power to protect not only forms of expression known in 1789 but also "what the ingenuity of men should devise thereafter."

<sup>33</sup> Pub. L. No. 96-517, § 12, 94 Stat. 3015, 3028 (1980) (codified at 17 U.S.C. §§ 101, 117) (the "1980 Software Amendments"). *See* H.R. Rep. No. 1307, 96th Cong., 2d Sess. at 23, *reprinted in* 1980 U.S.C.C.A.N. 6460, 6482 (the pertinent section of the bill "embodies the recommendations of [CONTU] with respect to clarifying the law of copyright of computer software").

<sup>34</sup> Pub. L. No. 93-573, § 201(b)-(c), 88 Stat. 1873-74 (1974).

Uses of Copyrighted Works (1978), at 1-2 & 37-46 (hereinafter "CONTU Report").

In recognizing copyright protection for computer programs, Congress did not depart from traditional principles, as the court of appeals appeared to believe. Pet. App. 24a-25a. Congress was well aware that computer programs serve a useful—as well as an expressive—purpose. But that has never been a bar to copyrightability. Indeed, the Constitution itself declares that the goal of copyright is to "promote the Progress of Science and useful Arts." United States Constitution, art. I, § 8, cl. 8 (emphasis supplied). And the First Congress extended copyright protection to maps and charts, which may possess aesthetically pleasing attributes when considered as antiques or decorations, but are created for a utilitarian purpose.<sup>35</sup>

Copyright traditionally has protected such useful types of "writing" as catalogs, dictionaries, and various forms of instructional or reference materials.<sup>36</sup> Moreover, long before 1976 it was well established that commercial cable and telegraph codes—consisting of arbitrary symbols and words intended only to serve the useful purpose of enabling eco-

<sup>35</sup> Act of May 31, 1790, ch. 15, § 1, 1 Stat. 124 (repealed 1831). See *Blunt v. Patten*, 3 F. Cas. 763, 764 (C.C.S.D.N.Y. 1828) (accepting copyrightability of plaintiff's navigational charts under Act of 1790, but finding no infringement when defendant's charts were created from own surveys and public sources and were not copied from plaintiff's).

<sup>36</sup> See, e.g., *United Dictionary Co. v. G. & C. Merriam Co.*, 208 U.S. 260 (1908) (noting copyrightability of Webster's High School Dictionary); *College Entrance Book Co. v. Amsco Book Co.*, 119 F.2d 874 (2d Cir. 1941) (reversing dismissal of case for infringement of book containing lists of French words to be studied for the New York Board of Regents examination, based upon the "originality" in plaintiff's choice of words, articles, and translations); *Guthrie v. Curlett*, 36 F.2d 694, 696 (2d Cir. 1929) (holding copyrights valid in consolidated freight tariff index because author "expressed" idea of consolidating relevant information "in the form and arrangement he chose to use" and "[t]he thought, arrangement and style was original," but finding no infringement when defendant had not copied the means of expression used by the author).

nomical and confidential business communications—were copyrightable, when embodied in the tangible medium of code books necessary to decipher their meaning.<sup>37</sup> As this Court stated in *Mazer v. Stein*, 347 U.S. at 218, with regard to the copyrightability of statuettes used as lamp bases: "We find nothing in the copyright statute [of 1909] to support the argument that the intended use or use in industry of an article eligible for copyright bars or invalidates its registration."

Nor can it be presumed—as the concurring opinion in the court below apparently does—that Congress failed to consider legislating under patent law, rather than copyright law, in exercising its power to protect the utilitarian expression in computer programs. Pet. App. 23a-25a. As the Court held in *Mazer*, the two bodies of law are *not* mutually exclusive.<sup>38</sup> Both are based upon the same Constitutional authority. *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 228-29 (1964). However, when Congress passed the 1980 Software Amendments,<sup>39</sup> this Court had twice held that computer programs,

<sup>37</sup> See *Hartfield v. Peterson*, 91 F.2d 998, 999, 1000 (2d Cir. 1937) (A. Hand, J.) (finding infringement when "phrases" in defendant's code book were copied from plaintiff's copyrighted code book); *American Code Co. v. Bensinger*, 282 F. 829, 832 (2d Cir. 1922) (sustaining copyright in a book of code words and symbols used "to enable telegraphic messages to be transmitted with simplicity, economy, and secrecy"); *Hartfield v. Herzfeld*, 60 F.2d 599, 599-600 (S.D.N.Y. 1932) (restraining infringement of artificial code words published in a book with parallel "Wall Street" expressions). See also David Kahn, *The Codebreakers: The Story of Secret Writing* 802-853 (1967) (describing historical development and usage of commercial cable and telegraph codes).

<sup>38</sup> 347 U.S. at 217. Congress was not only aware of *Mazer* when it passed the 1976 Act, it also acted affirmatively to incorporate its holding in the statute. House Report at 55, reprinted in 1976 U.S.C.C.A.N. at 5667-68.

<sup>39</sup> The 1980 Software Amendments were included as Section 10 of a bill entitled "To amend the patent and trademark laws," which also revised, in preceding sections, various provisions of patent law. See Pub. L. No. 96-517, 94 Stat. 3015 (1980).

standing alone, did not comprise patentable subject matter. *Gottschalk v. Benson*, 409 U.S. 63 (1972); *Parker v. Flook*, 437 U.S. 584 (1978). Congress chose not to disturb these rulings, opting instead to provide incentives to stimulate progress in this relatively new field of creative endeavor through the vehicle of copyright.<sup>40</sup> There is simply no basis in the statute or its legislative history to support the notion that Congress failed to understand the decision it made, or to make that decision after considering the alternatives.

**B. In Section 102(b) of the 1976 Act, Congress Applied to Expression in Computer Programs the Same Copyright Principles That it Applied to Other Forms of Expression.**

Contrary to the First Circuit's view that Section 102(b) enumerates categories of works "foreclosed" in their entirety from copyright protection (Pet. App. 21a), that provision merely serves to limit the extent to which copyright will protect a work that is copyrightable under Section 102(a) from unauthorized copying.<sup>41</sup> Section 102(b) provides:

In no case does copyright protection for an original work of authorship *extend* to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described,

<sup>40</sup> See CONTU Report at 16-18 (comparing copyright and patent protection; noting uncertain state of law concerning patentability of computer programs and likely difficulties faced by applicants for program patents). See also *Miles v. Apex Marine Corp.*, 498 U.S. 19, 32 (1990) ("We assume that Congress is aware of existing law when it passes legislation."); *Goodyear Atomic Corp. v. Miller*, 486 U.S. 174, 184-85 (1988) (same).

<sup>41</sup> See 1 Melville B. Nimmer & David Nimmer, *Nimmer on Copyright* (1995), § 2.03[D] at 2-34 (hereinafter *Nimmer*) (the distinction "constitutes not so much a limitation on the copyrightability of works, as it is a measure of the degree of similarity which must exist between a copyrightable work and an unauthorized copy, in order to constitute the latter an infringement").

explained, illustrated, or embodied in such work. (17 U.S.C. § 102(b) (emphasis supplied).)

The phrasing of Section 102(b) presupposes the existence of an "original work of authorship" entitled to "copyright protection," and simply makes it clear that the scope of that protection does not "extend" to any "idea, procedure, process, system, method of operation, concept, principle, or discovery" that the work reveals, regardless of how it is embodied in the work. Section 102(b) therefore explicitly distinguishes between an "idea" and the description or explanation of that idea. The "copyright protection" that "subsists in" a work by reason of Section 102(a) includes the particular expression of an "idea" in the work, but under Section 102(b) does not extend to the "idea" itself.<sup>42</sup>

The legislative history confirms that this is what Congress intended. Section 102(b) replaced Section 3 of the 1909 Act, which stated that copyright in a work protected only "the copyrightable components of a work." *Feist*, 499 U.S. at 355-56. This provision was thought to be ambiguous. *Id.* at 351. Section 102(b) thus "identifies specifically those elements of a work for which copyright is not available," but does so in a way that was not intended to alter the distinction that courts previously had drawn between an unprotected "idea" and the copyrightable "expression" of that idea (*id.* at 356):

Section 102(b) in no way enlarges or contracts the scope of copyright protection under the present law. Its purpose is to restate, in the context of the new single Federal sys-

<sup>42</sup> This interpretation of Section 102 comports with this Court's interpretation of Section 103 of the 1976 Act. Section 103—concerning "compilations," or selections and arrangements of preexisting facts or data (see 17 U.S.C. § 101 (definition of "compilation"))—contains a structure similar to Section 102. As this Court has explained, Section 103(a) affirmatively states that "the subject matter of copyright . . . includes compilations," while Section 103(b) makes it clear that copyright in such a work "protects only the author's original contributions—not the facts or information conveyed." *Feist*, 499 U.S. at 359.

tem of copyright, that the basic dichotomy between expression and idea remains unchanged. (House Report at 57, *reprinted in* 1976 U.S.C.C.A.N. at 5670.)

In *Feist*, this Court observed that the “idea/expression” or “fact/expression” distinction in Section 102(b) “applies to all works of authorship” (499 U.S. at 350)—a reading grounded in the words of the provision itself. 17 U.S.C. § 102(b) (“*In no case does copyright protection for an original work of authorship extend . . .*”) (emphasis supplied). And the legislative history confirms that Congress intended that Section 102(b) be interpreted so that the scope of copyright protection for computer programs is determined under the same principles that apply to other types of copyrightable works:

Some concern has been expressed lest copyright in computer programs should extend protection to the methodology or processes adopted by the programmer, rather than merely to the “writing” expressing his ideas. Section 102(b) is intended, among other things, to make clear that the expression adopted by the programmer is the copyrightable element in a computer program, and that the actual processes or methods embodied in the program are not within the scope of the copyright law. (House Report at 57, *reprinted in* 1976 U.S.C.C.A.N. at 5670.)

Congress plainly understood that computer programs had a functional aspect, and were used to accomplish a “process” or “method of operation.” Yet, like a compilation that can both “embody” the idea of a collection of facts and express that idea in an original selection and arrangement of those facts, Congress recognized that a computer program can both “embody” a process or method *and* contain a “copyrightable element” in the particular “expression adopted by the programmer” to implement that same process or method.<sup>43</sup>

<sup>43</sup> The Court, as well, long has understood that the same text may both reveal an “idea” and contain copyrightable expression in the

Congress’ intention that courts should interpret the terms “process” and “method of operation” in Section 102(b) in a manner consistent with traditional principles, and not in some manner unique to computer programs or other utilitarian works, is shown by their inclusion in a list of undifferentiated terms following the word “idea”—a term with a settled meaning in the copyright field.<sup>44</sup> Under the doctrine of *noscitur a sociis*, a word in a statute “gathers meaning from the words around it.” *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 115 S. Ct. 2407, 2415 (1995), quoting from *Jarecki v. G.D. Searle & Co.*, 367 U.S. 303, 307 (1961). See *Gustafson v. Alloyd Co.*, 115 S. Ct. 1061, 1069 (1995) (single word in a statute should not be given “a meaning so broad that it is inconsistent with its accompanying words”). Thus, applying the term “method of operation” in Section 102(b) to computer programs, copyright protects the particular words or symbols selected by the programmer to express a method (like the words chosen to express an idea), but not the “method of operation” (or “idea”) itself.<sup>45</sup>

Again, Congress confirmed this interpretation of Section 102(b) by adopting CONTU’s recommendations in the 1980 Software Amendments. CONTU realized that computer programs could be characterized as comprising a “process” or “method of operation.” CONTU Report at 18-20. Nevertheless, author’s original arrangement of words selected to describe that idea. *Holmes v. Hurst*, 174 U.S. 82, 86 (1899).

<sup>44</sup> See *Community for Creative Non-Violence v. Reid*, 490 U.S. 730, 739 (1989) (applying “well established” principle that when Congress uses terms that have achieved settled meaning under the common law, a court must infer that Congress intends to incorporate the established meaning of those terms, unless the statute otherwise dictates).

<sup>45</sup> See 1 *Nimmer*, § 2.03[D] at 2-35 (“It would, then, be a misreading of Section 102(b) to interpret it to deny copyright protection to ‘the expression’ of a work, even if that work happens to consist of an ‘idea, procedure, process, etc.’ Thus, if a given ‘procedure’ is reduced to written form, this will constitute a protectible work of authorship so as to preclude the unlicensed copying of ‘the expression’ of the procedure, even if the procedure per se constitutes an unprotectible ‘idea.’”).

less, the Commission agreed with Congress' earlier judgment that the "idea/expression" distinction was sufficient to guide the courts to draw an appropriate line for copyright protection of computer programs. It declared: "That the words of a program are used ultimately in the implementation of a process should in no way affect their copyrightability."<sup>46</sup>

CONTU also proposed the inclusion of the following definition of a "computer program":

A "computer program" is a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result. (*Id.* at 12.)

By incorporating this definition in Section 101 of the 1976 Act, Congress left no doubt of its intention to accord copyright protection to the particular "set of statements or instructions" expressed in a computer program, despite the fact that they would be "used" in implementing "method[s] of operation" to accomplish functional "result[s]." Moreover, because both a program's code and its menu command hierarchy express a "set of statements or instructions" that can be used to accomplish "a certain result" in a computer, they both fit the definition of a "computer program" that Congress adopted.

Had Congress intended to limit the copyright protection computer programs were to receive under Section 102, it knew how to do so. Congress confronted a somewhat analogous issue in its treatment of "useful articles," which are

<sup>46</sup> *Id.* at 21. CONTU did recommend one unique restriction on copyright protection for computer programs not material to the issues before the Court, proposing that owners of a legitimate copy of a program receive a limited right to make another copy or adaptation if necessary. CONTU Report at 12. That Congress enacted CONTU's one proposed limitation, but no other, demonstrates that Congress did not intend to treat programs differently from other forms of "literary works" in any other respect. See, e.g., *Russello v. United States*, 464 U.S. 16, 22 (1983) (noting that if Congress had intended to restrict the scope of a subsection of the RICO statute, "it presumably would have done so expressly" as it did elsewhere in the statute).

defined in Section 101 as articles "having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information." 17 U.S.C. § 101. "Useful articles" are copyrightable as "pictorial, graphic, and sculptural works"—one of the illustrative categories of works set forth in Section 102(a)—"only if, and only to the extent that, [their] design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article." 17 U.S.C. § 101. Congress could have defined "computer programs" in a similarly qualified fashion. It did not, instead defining them as "literary works"—creating an inference that no such limitation was intended. See *BFP v. Resolution Trust Corp.*, 114 S. Ct. 1757, 1761 (1994) (when Congress includes language in one section of a statute but omits it in another, courts presume that Congress acted purposely in enacting the disparate provisions).<sup>47</sup>

Thus, it is clear that Congress, in enacting both the 1976 Act and the 1980 Software Amendments, did *not* intend that the scope of protection for expression in computer programs should be governed by any special rules or limitations, despite its awareness that programs are utilitarian works that may be used for essentially functional purposes. Rather, Congress specifically intended the expression in computer programs to enjoy copyright protection under the same principles governing other forms of original expression in literary works. Moreover, neither the statute nor the legislative history suggests that Congress intended to treat differently those words or symbols the program displays to users in a menu command

<sup>47</sup> Although Congress chose *not* to classify computer programs as "useful articles," and although menus are not "useful articles" because their purpose is merely "to convey information," Judge Keeton did draw such an analogy (Pet. App. 117a), and at the trial in this case he applied the standard applicable to "useful articles" to test the copyrightability of the 1-2-3 menu command hierarchy. He found that it was, in fact, conceptually separable from, and was not "functionally dictated" by, the operations of the program that it described. Pet. App. 92a-94a.

hierarchy from those within its source or object code. The definitions Congress adopted for "literary works" and "computer programs" apply to each equally well. Congress' decision was within its Constitutional authority and fully consistent with the long-established tradition of recognizing copyright protection in the expressive elements of works that may also serve a useful purpose.

## II

### THE EXPRESSION IN THE LOTUS 1-2-3 MENU COMMAND HIERARCHY IS SEPARABLE FROM ITS IDEAS AND FUNCTIONALITY, AND IS THEREFORE ENTITLED TO COPYRIGHT PROTECTION

As this Court held in *Feist*, 499 U.S. at 350, Congress intended in Section 102(b) to codify the judicially-developed "idea/expression" dichotomy, which courts traditionally have applied to determine the scope of protection to be accorded to copyrighted works. "When Congress codifies a judicially defined concept, it is presumed, absent an express statement to the contrary, that Congress intended to adopt the interpretation placed on that concept by the courts." *Davis v. Michigan Dep't of Treasury*, 489 U.S. 803, 813 (1989).<sup>48</sup>

<sup>48</sup> Section 102(b) is only one of several provisions in which Congress codified a judicially defined concept in the 1976 Act. *Reid*, 490 U.S. at 749 n.15. See *Feist*, 499 U.S. at 355 (stating that Congress did not intend in Section 102(a) to contract the bounds of copyrightable subject matter); *Campbell v. Acuff-Rose Music, Inc.*, 114 S. Ct. 1164, 1170 (1994) (holding that Congress intended the "fair use" provision of Section 107 of the 1976 Act "to restate the present judicial doctrine of fair use, not to change, narrow, or enlarge it in any way") (quotation omitted).

### A. The Judicially-Developed Idea/Expression Dichotomy Distinguishes Between the Use of the Ideas Embodied in a Work and Their Particular Description or Explanation

The idea/expression dichotomy obliges courts to determine whether the particular element of a copyrighted work that an accused infringer has copied is merely an "idea" embodied in the original work, or is a particular way to express that idea chosen by the author from a universe of many possibilities. When the element that was copied is one of only a few conceivable ways to express the idea, or is at a level of abstraction so general that to deem it an infringement effectively precludes all others from publishing any other expression of that idea, the idea and expression are said to "merge" and copyright protection is foreclosed. *Morrissey v. Procter & Gamble Co.*, 379 F.2d 675, 678-79 (1st Cir. 1967).<sup>49</sup>

The origin of the "idea/expression" dichotomy and the related merger doctrine generally is traced to this Court's decision in *Baker v. Selden*, 101 U.S. 99 (1879), although—like "fair use"—its roots run deep in the common law of copyright.<sup>50</sup> *Selden* published a series of pamphlets intro-

<sup>49</sup> See also *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1444 (9th Cir. 1994) (noting "well-recognized" precept that when an idea and its expression are indistinguishable, or "merged," the expression will be protected only against nearly identical copying), *cert. denied*, 115 S. Ct. 1176 (1995); *Kepner-Tregoe, Inc. v. Leadership Software, Inc.*, 12 F.3d 527, 533 (5th Cir.) (noting that, when idea can be expressed in very few ways, copyright law does not protect that expression; "In such cases idea and expression are said to be merged."), *cert. denied*, 115 S. Ct. 82 (1994); *Gates Rubber Co. v. Bando Chem. Indus., Ltd.*, 9 F.3d 823, 838 (10th Cir. 1993) ("Under the merger doctrine, copyright protection is denied to expression that is inseparable from or merged with the ideas, processes, or discoveries underlying the expression.").

<sup>50</sup> See, e.g., *Emerson v. Davies*, 8 F. Cas. 615, 618-19 & 625 (C.C.D. Mass. 1845) (Story, J.) (holding that plaintiff's original "plan, arrangement and combination of materials" for a series of arithmetic lessons was copyrightable, even if the materials so arranged did not originate with the author, and finding infringement when defendant copied

ducing a self-described “new system of Book-keeping” intended primarily for use by municipal treasurers, which contained a preface page, a one-page introductory essay, a collection of forms illustrating the practical use of the “system,” and another collection of blank forms.<sup>51</sup>

Baker devised a competing “system” of ledger forms that—as his counsel argued in this Court—used a different “arrangement” of columns and differed markedly from Selden’s in other respects:

The entries in Baker’s are upon the principle known as single entry; the entries in Selden’s are known as double entry. The situation of columns is reversed and other differences shown by the testimony cited above are so radical as to entirely relieve the Baker system from the charge of infringements. (Argument for Appellant at 16 & 18, *Baker v. Selden* (No. 95, October Term, 1879).)

The only commonality lay in the use of certain column headings required of county treasurers by Ohio statute (*id.* at 10-13), together with the use of ruled columns in a system based upon the “same generic principles,” which would “produce the same result” of “keep[ing] the different accounts accurately.”<sup>52</sup>

Observing that the “evidence of the complainant is principally directed to the object of showing that Baker uses the that plan and arrangement instead of composing a new arrangement from the same “common materials and common sources of knowledge, open to all men”).

<sup>51</sup> Charles Selden, *Selden’s Condensed Ledger, and Condensed Memorandum Book, and Forms of Record, Condensed Ledger, Reports, and Condensed Memorandum Book* (5th ed. 1861) (copies of which are lodged with the Court). The pamphlets are described as “books” in the Court’s opinion because, at the time they were registered, that was the statutory category of copyrightable subject matter to which such works belonged. *Baker*, 101 U.S. at 101.

<sup>52</sup> *Id.* at 16 & 18. Comparison of Baker’s ledger forms (Transcript of Record at 119-143, *Baker v. Selden*), with Selden’s reveals few, if any, literal similarities.

same system,”<sup>53</sup> the Court concluded that Baker’s system “uses a similar plan so far as results are concerned; but makes a different arrangement of the columns, and uses different headings.” 101 U.S. at 100. Thus, the Selden work was not infringed “in any way, unless the latter became entitled to the exclusive right in the system.” *Id.* at 101. The Court then rejected the contention that copyright gave Selden the “exclusive right to the use of the system or method of book-keeping” as illustrated in his forms, or in forms “made and arranged on substantially the same system.” *Id.* As the Court declared:

[W]here the art [a book] teaches cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art, and given therewith to the public; not given for the purpose of publication in other works explanatory of the art, but for the purpose of practical application. (*Id.* at 103.)

Conversely, the Court stated that copyright *does* protect the author’s particular *statement* of the “rules and methods of useful art” as “embodied and taught” in a copyrighted work:

The use by another of the same methods of statement, whether in words or illustrations, in a book published for teaching the art, would, undoubtedly, be an infringement of the copyright . . . . The use of the art is a totally different thing from a publication of the book explaining it. (*Id.* at 104.)

<sup>53</sup> Selden’s estatrix argued that Selden’s copyrights “extend to and embrace a *system of bookkeeping*—a combination of lines so arranged as to suggest an improved method of classifying and condensing mercantile accounts. The lines are the symbols to convey the idea of the method or plan.” Argument for Appellee at 6-7, *Baker v. Selden* (emphasis in original).

Thus, the Court concluded that the copyright in Selden's "book" of forms "did not confer upon him the exclusive right to make and use account-books ruled and arranged as designated by him and described and illustrated in said book." *Id.* at 107.

*Baker v. Selden* thus establishes the basic idea/expression dichotomy and the related merger doctrine. Copyright will not prevent the practical use by the public of the "art" a work teaches, or of illustrations and forms that are "necessary incidents to the art"—i.e., that reflect a "merger" of idea and expression. But this limitation does not permit the unlicensed use of the author's description, explanation, or illustration of the art in another work "published for teaching the art." An element of a work, therefore, does not lose all copyright protection merely because it describes a system or method that its author intended for "people" to learn and use, as the First Circuit erroneously concluded from its reading of *Baker*. Pet. App. 18a. People may be free to use the method, but no one can publish another work describing or explaining that method using the author's particular expression of it.

To articulate the holding of *Baker v. Selden* is easier than to apply its principle. As the Second Circuit has written, the decision "offers scant guidance on how to separate idea from expression," or on how to "distinguish protectible expression from that expression which 'must necessarily be used as incident to' the work's underlying concept." *Computer Assoc. Int'l, Inc. v. Altai, Inc.*, 982 F.2d 693, 705 (2d Cir. 1992).<sup>54</sup> Applying the idea/expression dichotomy to the facts of a particular case has always presented a challenge, not only in cases involving computer programs.<sup>55</sup> To determine whether

<sup>54</sup> As the district court noted in this case, the Second Circuit's *Altai* decision takes *Baker* as the "starting point" for its analysis, but did not hold that *Baker* controlled the outcome: "The Second Circuit was sensitive not only to its duty of fidelity to precedent, but as well to its duty of fidelity to congressional mandates that came into existence long after *Baker* was decided." Pet. App. 127a.

<sup>55</sup> See Jane C. Ginsburg, *Four Reasons and a Paradox: The Manifest Superiority of Copyright over Sui Generis Protection of Computer*

particular expression is inseparable from or "merges" with any idea or method it embodies is, in all events, a fact-specific inquiry, which defies any "bright line" rules. After five decades on the bench, no less a jurist than Learned Hand could declare only that decisions as to when an imitator has gone beyond the idea and borrowed the expression of a work "must inevitably be *ad hoc*." *Peter Pan Fabrics, Inc. v. Martin Weiner Corp.*, 274 F.2d 487, 489 (2d Cir. 1960). The distinctions required are the sort of subtle, yet important and necessary, judgments that courts are routinely called upon to make in copyright cases—as in many others.

Although the methodologies courts have employed vary somewhat in their details, a consensus has emerged around the so-called "abstraction-filtration-comparison" test for applying the idea/expression distinction in the context of computer programs.<sup>56</sup> The test draws upon the "patterns of abstraction" analysis articulated in *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930) (L. Hand, J.), *cert. denied*, 282

*Software*, 94 Colum. L. Rev. 2559, 2560 (1994) (disagreement over identification of the expression that may be protected without risk of monopolizing the underlying idea "is hardly peculiar to computer programs"); Arthur R. Miller, *Copyright Protection for Computer Programs, Databases, and Computer-Generated Works: Is Anything New Since CONTU?*, 106 Harv. L. Rev. 977, 1035 (1993) ("Courts always have had to struggle with the delicate questions of where the commonplace becomes originality and where legitimate imitation shades into infringement, especially in the environment of a new mode of expression.").

<sup>56</sup> See, e.g., *Engineering Dynamics, Inc. v. Structural Software, Inc.*, 26 F.3d 1335, 1342-43 (5th Cir. 1994) ("Generally, we endorse the abstraction-filtration-comparison method of determining copyright protection for computer programs . . ."), *opinion supplemented on denial of reh'g en banc*, 46 F.3d 408 (5th Cir. 1995); *Apple Computer v. Microsoft*, 35 F.3d at 1445-46 (endorsing "dissection" of nonliteral elements of computer programs to determine infringement and noting that abstraction-filtration-comparison test performs same analysis, although articulated differently); *Gates Rubber*, 9 F.3d at 840-41 (accepting basic three-part analysis of abstraction-filtration-comparison test articulated in *Altai*); *Altai*, 982 F.2d at 706-11. See also 3 *Nimmer*, § 13.03[F][1] at p. 13-125-50 (describing "successive filtration" test).

U.S. 902 (1931), to identify an appropriate conception of the work's unprotected ideas.<sup>57</sup> Typically, a "filtration" step is then applied, in which the elements of the copyrighted work are analyzed to screen out those that are unprotected for other reasons.<sup>58</sup> Finally, the court compares the protected elements of the copyrighted work with the accused work to determine whether infringement has occurred.

Whether any particular circuit's version of this test, or even another type of test, is preferable from a doctrinal or practical standpoint is not at issue in this case.<sup>59</sup> Every court of appeals that has addressed this issue (other than the First Circuit) has reached the common understanding that Section 102(b) requires courts to attempt to separate the purely functional attributes of computer programs from the particular expression chosen by the programmer to accomplish or to provide that functionality. See *Atari Games Corp. v. Oman*, 888 F.2d 878, 884-86 (D.C. Cir. 1989) (R.B. Ginsburg, J.) (reversing judgment affirming Copyright Office refusal to register copyright in video game, for failing to explain how the work was "dictated by 'functional requirements'" and lacked expression "separable from the game itself" that would

<sup>57</sup> In *Nichols*, Judge Hand recognized that infringement could occur without literal copying of a work's text, or "else a plagiarist would escape by immaterial variations." 45 F.2d at 121. The "abstraction" analysis seeks to identify the point in the "patterns of increasing generality" that may be discerned in a work where the statement of what has been copied is no more than an unprotected "idea" (*id.*)—e.g., "a play about star-crossed young lovers," "a system for keeping municipal accounts," or "a spreadsheet program with a hierarchical menu structure." This insight continues to furnish a durable construct for idea/expression analysis.

<sup>58</sup> These filters are simply applications in this particular context of the traditional copyright doctrines of merger, originality, and *scènes à faire*. 3 *Nimmer*, § 13.03[F][1] at p. 13-130 & 13-135 n.303.13.

<sup>59</sup> See 1 William F. Patry, *Copyright Law and Practice* 225-26 (1994) (suggesting that courts should focus less on devising tests and more on interpreting the statute, including the statutory definitions, to determine the materiality of an alleged infringer's taking).

"qualify as copyrightable subject matter").<sup>60</sup> To employ the language of *Baker v. Selden*, courts must attempt to separate the practical use of the system from the author's particular statement explaining or describing the system. Prior to the First Circuit's decision in this case, the circuits had reached consensus that, when such a separation is possible, the expression is protected by copyright if it is only one of numerous possibilities for providing the same functionality.<sup>61</sup> The First Circuit, alone, has seen fit to interpret Section 102(b) in a contrary manner.

#### B. Under the Idea/Expression Dichotomy, the 1-2-3 Menu Command Hierarchy Contains Protected Expression

The outcome in this case does not depend upon which articulation of the idea/expression distinction is employed—as Borland conceded in oral argument in the court of appeals, and as that court apparently accepted. Pet. App. 14a-15a.

<sup>60</sup> See also *Atari Games Corp. v. Oman*, 979 F.2d 242, 247 (D.C. Cir. 1992) (R.B. Ginsburg, J.) (reversing second refusal to register copyright in same video game, when Copyright Office failed to consider scope of expression in work as a whole under the threshold standard of creativity enunciated in *Feist*).

<sup>61</sup> See, e.g., *Autoskill Inc. v. Nat'l Educational Support Sys., Inc.*, 994 F.2d 1476, 1494 (10th Cir.) (upholding lower court's refusal to apply merger doctrine to deny protection to elements of computer program, when that court found no evidence that the program's "idea" could be expressed in only one way), *cert. denied*, 114 S. Ct. 307 (1993); *Whelan Assoc., Inc. v. Jaslow Dental Lab., Inc.*, 797 F.2d 1222, 1236 & n.28 (3d Cir. 1986) (finding structure of computer program to be part of its expression, because "idea" of efficiently managing dental laboratory could be accomplished in a number of different ways with a number of different programs; "Where there are various means of achieving the desired purpose, then the particular means chosen is not necessary to the purpose; hence, there is expression, not idea."), *cert. denied*, 479 U.S. 1031 (1987); *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240, 1253 (3d Cir. 1983) ("If other methods of expressing that idea are not foreclosed as a practical matter, then there is no merger."), *cert. dismissed*, 464 U.S. 1033 (1984).

Indeed, the First Circuit dismissed as "immaterial" to its analysis *any* consideration of the extent to which the selection and arrangement of the 469 words comprising the 1-2-3 menu command hierarchy reflected "'expressive' choices," or was capable of alternative expression. Pet. App. 17a. But these are precisely the questions a court *must* consider in order to determine whether a particular element of a work is protected by copyright. Judge Keeton engaged in detailed fact-finding on these issues in the district court upon an ample trial record, and found that Borland had copied protected expression in the 1-2-3 menu command hierarchy. The First Circuit did not disturb or reject these findings as clearly erroneous; it simply chose to ignore them.

The district court's test for determining whether Borland had copied protected expression in the Lotus 1-2-3 menu command hierarchy was based upon one it devised in the earlier *Paperback* case (*id.* at 216a-17a), refined in light of the issues presented in this case. *Id.* at 163a-65a, 170a-71a. Like the "abstraction-filtration-comparison" test, Judge Keeton's began with a *Nichols* "abstraction" analysis (*id.* at 118a-20a, 163a, 219a-222a), proceeding to a second step in which elements of the work that are "functionally dictated" or are "necessary incidents" to the idea, system, or method, were removed.<sup>62</sup> Applying this test to the 1-2-3 menu command hierarchy, the district court considered five possible conceptions of its underlying idea and found that the following formulation was the proper one:

[Its] user interface involves a system of menus, each menu consisting of less than a dozen commands, arranged hierarchically, forming a tree in which the main menu is the root/trunk of the tree and submenus branch off from higher menus, each submenu being linked to a higher menu by operation of a command, so that all the

<sup>62</sup> *Id.* at 119a-20a, 127a, 163a-65a. Judge Keeton's test also concluded with a determination of the qualitative substantiality of the copied expression. *Id.* at 119a, 135a, 163a-65a, 171a.

specific spreadsheet operations available in Lotus 1-2-3 are accessible through the paths of the menu command hierarchy. (Pet. App. 73a-74a.)

No lesser level of abstraction is possible without defining the "idea" of the 1-2-3 menu command hierarchy as itself—a tautology the district court found to be unjustified. *Id.* at 130a. This was so because, under the district court's definition, another spreadsheet program could offer *exactly* the same selection of functions as does 1-2-3 without infringing, so long as it used different expression in its menus. *Id.* Thus, the district court concluded that the Lotus 1-2-3 menu command hierarchy contained "expression" distinguishable from its "idea" (or "system") and was entitled to protection.

The district court also found, after trial, that the 1-2-3 menu command hierarchy was not determined by its underlying functionality (*id.* at 84a-90a), and that the "text of the menu commands and the menu structure itself are not dictated by mechanical application of the functional considerations" Borland contended had confined its expression. *Id.* at 92a. Judge Keeton went on to apply the principles used to find separable expression in "useful articles," even though the statutory definition of "useful articles" does not include computer programs. See 17 U.S.C. § 101. Judge Keeton found that the functional operations of the program could be conceptually separated from the text and arrangement of the menus explaining them, and that this latter expression "easily satisfies" the originality requirement as articulated by this Court in *Feist*.<sup>63</sup>

<sup>63</sup> Pet. App. 92a. Concerning the Key Reader, the district court was careful to limit its decision *only* to the specific issues raised by Borland's use of "phantom" 1-2-3 menus to run 1-2-3 macros. *Id.* at 39a. In particular, Judge Keeton found that Borland had implemented the Key Reader by stripping all but the first letters from "the same copy of the 1-2-3 menu structure and commands that Borland had used in its emulation interface," in what he called a "stripped menu tree." *Id.* at 35a. Borland nonetheless had copied protected expression because the Key Reader contained a recognizable copy of the 1-2-3 menus. *Id.* at 44a. Like a compilation that expresses, in its arrangement, an original way to

The First Circuit dispensed with the need to review the district court's fact-based conclusion by reading Section 102(b) as a definitional filter, rather than as a codification of the idea/expression dichotomy. That is, once the court of appeals decided to affix a pejorative label to the 1-2-3 menu command hierarchy, no further analysis was necessary. The court may have spared itself the difficult task of finding the line between idea and expression by ruling as a matter of law that *all* menus are *per se* uncopyrightable methods of operation—no matter how much creative, original, and separable expression they contain—but it did so at the expense of fidelity to an uninterrupted line of precedent and despite Congress' clear intent to the contrary.

### III

#### THE FIRST CIRCUIT'S DECISION EFFECTIVELY NULLIFIES THE COPYRIGHT PROTECTION CONGRESS ENACTED FOR THE EXPRESSION IN COMPUTER PROGRAMS

The First Circuit fundamentally misread Section 102(b) of the 1976 Act as automatically barring copyright protection for any aspect of a computer program that can be described as embodying a "method of operation," regardless of the expressive elements it contains.<sup>64</sup> This interpretation has no support in the language of the 1976 Act, the 1980 Software Amendments, or the legislative history. It also runs directly against the entire body of decisional authority before and after the

gain access to uncopyrightable facts, the district court found that the arrangement of the 1-2-3 menu tree expresses an original way to specify the set of executable (and uncopyrightable) operations in a spreadsheet program. *Id.* at 40a-41a.

<sup>64</sup> Pet. App. 17a. The First Circuit essentially rewrote Section 102(b) to state: "In no case does copyright protection extend to any method of operation, or to any description, explanation, illustration, or embodiment thereof, in an original work of authorship."

passage of the 1976 Act, which consistently has applied the idea/expression distinction to determine the scope of protection for all copyrighted works. The First Circuit's ruling effectively nullifies Congress' decision to recognize copyright protection for computer programs and fails to accord to owners of copyright in such works the same scope of protection for their property that owners of copyright in other works of authorship enjoy.

#### A. The Decision Below Rests Upon an Interpretation of Section 102(b) Contrary to Congress' Intent

The First Circuit described the Lotus 1-2-3 menu command hierarchy as a "method of operation" because, in that court's view, it is the "means by which a person operates something"—*i.e.*, a computer—in order to achieve a functional result.<sup>65</sup> But the same can be said of computer programs generally, because all computer programs can be described as "the means by which a person operates" a computer—as the concurring opinion below acknowledged. *Id.* at 24a. Congress understood that computer programs were "to be used . . . in a computer in order to bring about a certain result" (17 U.S.C. § 101) when it decided to recognize their copyrightability. The First Circuit's interpretation flouts Congress' intention to give meaningful protection to a type of work that the statute explicitly covers. It therefore cannot be correct. As this Court has stated, it is the courts' "role to make sense rather than nonsense out of the corpus juris." *West Virginia Univ. Hosp., Inc. v. Casey*, 499 U.S. 83, 99 (1991).<sup>66</sup>

<sup>65</sup> *Id.* at 15a. The majority cited no authority for this definition. Indeed, Borland argued in the court below that the 1-2-3 menu command hierarchy was a "system," not a "method of operation," and the meaning of the latter term was not briefed or argued by either party below.

<sup>66</sup> *Accord*, *Taylor v. United States*, 495 U.S. 575, 594 (1990) (declining to follow any rule that gives statutory term a meaning that is "obsolete or inconsistent with the statute's purpose"); *United States v. Ron Pair Enter., Inc.*, 489 U.S. 235, 242 (1989) (noting that drafters' intention controls interpretation of statute whenever "the literal appli-

The fallacy of the First Circuit's reasoning is shown in its attempt to distinguish the copyrightability of the 1-2-3 program code from that of the 1-2-3 menu command hierarchy. It is true, as the court observed, that Borland need not have copied the 1-2-3 code in order "to offer the same capabilities as Lotus 1-2-3," in the sense that different program codes could have been written to achieve the same functional results. Pet. App. 16a. But that observation does *not* distinguish the copyrightability of 1-2-3's code from its menu command hierarchy. As the district court found, a program need not copy the Lotus 1-2-3 menu command hierarchy in order to offer the same capabilities as 1-2-3: different menu command hierarchies can be written to express exactly the same set of functional operations, as Borland proved with its so-called "alternative" user interfaces. *Id.* at 86a-90a.

How, then, could the First Circuit have concluded that it could apply its rule of *per se* exclusion of methods of operation to menu commands but not, with comparable effect, to program code? The answer lies in an unacknowledged shift in the First Circuit's perspective. According to the court, once Lotus 1-2-3 was written, the particular words in its menus became "essential" to its operation and, therefore, unprotectable. Pet. App. 17a. Even if this were true—and it is not<sup>67</sup>—it still would provide no basis for distinguishing the treatment of program code. Once a program is written, its particular statements and instructions also become "essential" to its operation. Only by considering the copyrightability of

cation of a statute will produce a result demonstrably at odds with the intentions of its drafters"). See also Ginsburg, *supra*, n.55 at 2569-70 (because "one should endeavor to construe statutes in a way that does not render them futile," any tension between Section 102(b) and the definition of a "computer program" must be resolved in favor of protecting "some ways of achieving 'a certain result' ") (emphasis in original).

<sup>67</sup> A user who had memorized Lotus 1-2-3's menu commands and the associated keystrokes or cursor movements could operate the program without reference to its menus, just as a poem or a song can be memorized with repetition.

1-2-3's menus *after* the program was written, but its code *before*, could the First Circuit purport to find a distinction. There is simply no logical basis upon which the Court can sustain the First Circuit's interpretation of Section 102(b) without frustrating Congress' manifest intention to recognize copyright protection for computer programs.

#### **B. The Policy Arguments Raised in the Court of Appeals Do Not Justify Depriving Computer Programs of the Statutory Protection to Which They Are Entitled**

Both opinions in the court of appeals display a general discomfort with the Congressional decision to recognize copyright protection for computer programs, suggesting that the First Circuit's strained interpretation of Section 102(b) was influenced by certain policy arguments that Borland and various of its *amici* advanced concerning the alleged competitive effects of a decision in Lotus' favor. Pet. App. 21a & 23a-28a. In addition to being grossly exaggerated, most of the First Circuit's assumptions are without record support because none of these issues was tried in the district court (as discussed at pp. 15-16 above).

More fundamentally, that court appears to have ignored the plain fact that Congress resolved these policy questions in the 1976 Act.<sup>68</sup> As this Court previously has observed, virtually every provision in the 1976 Act was the result of a long process of negotiation and deliberation, reflecting both a carefully-crafted compromise among the interested copyright constituencies and the exercise of legislative judgment. *Stewart v. Abend*, 495 U.S. 207, 225-26 (1990); *Community for*

<sup>68</sup> In Judge Boudin's concurring opinion, the sole citation for the proposition that courts, rather than Congress, are to determine "what may be protected and with what limitations and exceptions" (*id.* at 25a), is a single sentence in one of the lectures collected in Kaplan's *An Unhurried View of Copyright*. The lecture was delivered in 1966 and addressed, in the cited passage at page 40, the "maddeningly casual prolixity and imprecision throughout" the 1909 Act, not the as-yet-unwritten 1976 Act.

*Creative Non-Violence v. Reid*, 490 U.S. 730, 748 n.14 (1989); *Mills Music, Inc. v. Snyder*, 469 U.S. 153, 174 n.41 (1985).<sup>69</sup> This Court, accordingly, has declined to interpret provisions of the 1976 Act based on its own perception of the relevant policies. As the Court stated in *Stewart v. Abend*, 495 U.S. at 230, "it is not [the Court's] role to alter the delicate balance Congress has labored to achieve;" such "arguments are better addressed by Congress than the courts." *Id.* at 228.

For example, the concurring opinion suggests that courts should be particularly hesitant in extending copyright protection to computer programs, because to do so "can have some of the consequences of *patent* protection in limiting other people's ability to perform a task in the most efficient manner." Pet. App. at 23a (emphasis in original). Even if computer programs, standing alone, had been considered patentable subject matter at the time Congress acted—and they were not (see pp. 25-26 above)—its decision to protect computer programs under copyright law must be accepted as a deliberate and rational policy determination. The lower court's assumption that protecting the utilitarian aspects of computer programs under patent law, rather than copyright, would result in greater freedom to innovate and a lesser effect on competition is a debatable point at best.<sup>70</sup> Determining how

<sup>69</sup> See also Miller, *supra*, n.55 at 979-85 (discussing history leading to passage of 1976 Act and its treatment of computer programs; the author was a CONTU commissioner and served as a member of its software subcommittee).

<sup>70</sup> The numerous differences between patent and copyright law defy easy generalizations concerning which is "better" from a policy perspective. For purposes of promoting creativity, the novelty requirement for patent protection may be too high a threshold—denying *all* protection to the vast majority of original, but not truly inventive, works. If the goal is to preserve competition, patent protection may be too powerful, because a patent owner can prohibit all others from practicing the claimed invention—even innocent infringers or independent creators—unlike a copyright owner, who can demand only that subsequent authors do their own work instead of copying. See *Mazer*, 347 U.S. at 218

best to balance the countervailing factors in order to "promote the Progress of Science and useful Arts" is a task the Constitution gives to Congress, not the courts.

The First Circuit also expressed concern about the potential impact upon competition if the owners of industry-leading programs were permitted to enjoy the full protection of copyright law. Pet. App. 21a & 26a-28a. This Court, however, has rejected the notion that a copyrighted work should receive lesser rights simply due to its public importance. *Harper & Row, Publishers, Inc. v. Nation Enter.*, 471 U.S. 539, 557-59 (1985). The assertion that a software product forfeits some portion of the protection to which it should be entitled because it has become—for the moment—the most popular, is "fundamentally at odds with the scheme of copyright protection." *Id.* at 559. Moreover, because these issues were not tried in the district court, there was nothing in the record to permit an accurate or measured evaluation of the legitimacy of this concern.

The concern is overstated in all events. In a competitive market, in which consumers are free to choose among substitutable—if differently expressed—offerings, the ability of any one software vendor to force unwilling adherence to a proprietary standard may prove short-lived, if not illusory.<sup>71</sup> When, on the other hand, the competitive marketplace has broken down, the appropriate answer is to enforce the antitrust laws, not to misinterpret copyright law.<sup>72</sup> Moreover,

("Absent copying, there can be no infringement of copyright."). And, although a patent confers upon its owner a shorter period of exclusivity, the difference has little practical effect in the fast-moving software industry, in which even seventeen or twenty years is more than long enough to span many product life cycles.

<sup>71</sup> See Huber, *supra*, n.19 at 104 (suggesting that any decision by Lotus to overprotect its copyrights could eventually prove self-defeating, in light of consumer preference for non-proprietary standards).

<sup>72</sup> See, e.g., *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 479 n.29 (1992) (intellectual property protection does not create immunity from antitrust laws). The doctrine of "copyright misuse"

Section 102(b), the idea/expression dichotomy, and the merger doctrine already address the First Circuit's concern. If, as in this case, many ways exist to express the same program functionality, then the market is not deprived of products performing those functions when copyright protection is accorded to the separable expression embodied in one of those ways.<sup>73</sup> Because this principle—which the First Circuit ignored—is embedded in the statute, there is no need or reason to create new judicial limitations that Congress never intended.

In addition, the “fair use” doctrine, under appropriate circumstances, may guard against any undue adverse effect of copyright protection on competition. Like the idea/expression distinction itself, the fair use doctrine allows some opportunity for copying of another's work to fulfill the purpose of promoting “the Progress of Science and useful Arts.” *Campbell v. Acuff-Rose Music, Inc.*, 114 S. Ct. 1164, 1169 & n.5 (1994).<sup>74</sup> That Borland failed to make out a “fair use” defense

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may also prevent a copyright owner from attempting to use its copyrights to prevent others from developing non-infringing but competitive products, and thereby obtaining excessive exclusionary power. *Lasercomb America, Inc. v. Reynolds*, 911 F.2d 970, 978-79 (4th Cir. 1990).

<sup>73</sup> Cf. *Two Pesos, Inc. v. Taco Cabana, Inc.*, 112 S. Ct. 2753, 2760-61 (1992) (holding that insistence upon rule that only “non-functional, distinctive trade dress is protected under § 43(a)” of the Lanham Act, 15 U.S.C. § 1125(a), which requires that a design not be “one of a limited number of equally efficient options available to competitors,” is sufficient “to assure that competition will not be stifled by the exhaustion of a limited number of trade dresses”).

<sup>74</sup> See *Sega Enter. Ltd. v. Accolade, Inc.*, 977 F.2d 1510, 1527 (9th Cir. 1992) (finding fair use when competitor copied computer programs as only way to discover their unprotected elements, but did not include the copied expression in competing products); *Lewis Galoob Toys, Inc. v. Nintendo of America, Inc.*, 964 F.2d 965, 972 (9th Cir. 1992) (finding fair use when limited portion of computer program was copied in order to provide product that worked with and complemented, but did not supersede, the original), *cert. denied*, 113 S. Ct. 1582 (1993).

in this case—or even to assert one in a timely fashion<sup>75</sup>—does not justify the grafting of a new, judicially-created “privilege” onto the copyright statute. Pet. App. 28a.

Bluntly put, Congress did not provide courts with a blank slate to write the rules of protection for computer software. The members of the panel below were not at liberty to negate Congress' decision solely because it did not comport with their own assessment of the various policy considerations involved. In 1976, and again in 1980, Congress spoke: expression in computer programs is entitled to copyright protection under the same principles pertaining to more traditional forms of expression, despite the fact that they are complex, utilitarian, and functional works. A large and vibrant national industry has grown in reliance on these property rights as its lifeblood. The First Circuit, based on little more than its own subjective impressions and with only the vaguest understanding of the potential consequences of its decision, ventured to supplant Congress' judgment with its own. This was an error that, we respectfully submit, must be reversed.

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<sup>75</sup> As discussed at pp. 3-4 above, Borland only belatedly asserted fair use as a defense in this case, and then failed to prove that its conduct did not, and would not, have a damaging effect on the market for Lotus 1-2-3. See *Campbell*, 114 S. Ct. at 1176 (“Since fair use is an affirmative defense, its proponent would have difficulty carrying the burden of demonstrating fair use without favorable evidence about relevant markets.”) (footnote omitted).

**CONCLUSION**

The judgment of the First Circuit should be reversed and this case remanded for further proceedings.

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